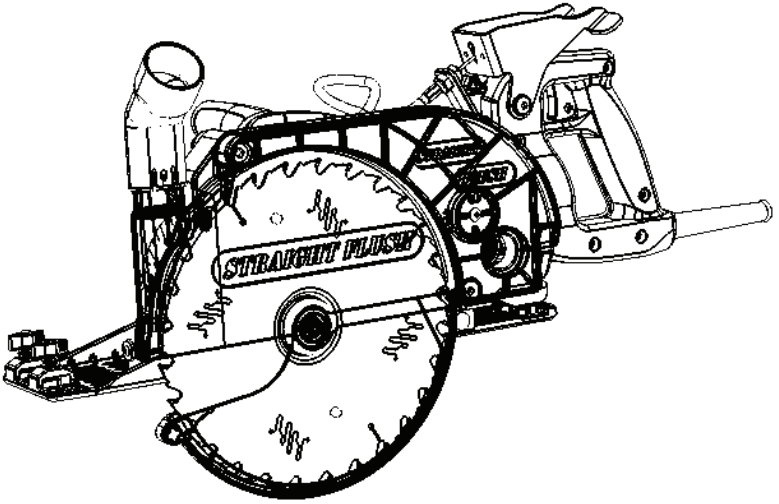
Straight Flush Saw User's Manual



Model 8.5

OPERATING/SAFETY INSTRUCTIONS
IMPORTANT: READ BEFORE USING

Cuz-D
INDUSTRIES

Keep current on safety information
at www.straightflushsaw.com

Practicing safety is very important. Read this entire manual before use and check in on our website for further safety information and other tips and tricks for using this power tool.

Power saws by their nature can be dangerous always use proper safety gear and do not allow the saw blade to contact your skin or clothing.

This saw is designed for use by Professionals Only

Do not use this saw without proper knowledge and safety resources

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GENERAL POWER TOOL SAFETY

⚠ WARNING

Before operating power tool, ensure that all safety warnings and instructions are read. Failure to abide by these precautions may result in electrical shock, fire, damage to equipment, or personal injury.

⚠WARNING

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE.

The term “power tool” used throughout this manual refers to corded/cordless power tools.

Personal Safety

Always pay close attention to what you are doing and use common sense. Power tools shall not be operated if operator is under the influence ofdrugs or alcohol, on medication, or tired. A brief moment of inattention during operation may result in damage to equipment or personal injury.

Personal Protective Equipment (PPE). Always wear eye protection. SpecificPPE such as dust mask, non-slip safety shoes, hard hat, hearing protection,and appropriate gloves can be worn to reduce the possibility of personal injury.

Prevent unintentional starting. Ensure the safety switch is in the “OFF”position before connecting the tool to a power supply, picking up, or carrying. Carrying power tools with your finger on the trigger or while the tool is energized may result in unintentional starting.

Do not overreach. Keep firm footing and balance at all times. This allowsfor better control and operation of the power tool in unexpected circumstances.

Ensure that adjusting keys or wrenches are removed before turning onthe power tool. Any adjusting wrench or key left attached may result in physical injury.

If devices are provided for dust extraction/collection, make sure they areattached properly and used as specified. Use of dust collection devices will reduce dust related hazards.

Wear appropriate clothing. Do not wear jewelry or loose clothing. Keep hair, clothing, and gloves away from all moving parts. Loose articles can get caught in moving parts and cause serious injury or damage.

Work Area Safety

Keep work area clean and well lit. Cluttered or dark areas invites accidents.

Do not operate power tools in the presence of flammable liquids or dust. Power tools may generate sparks which could ignite flammable dust or fumes.

Keep bystanders, children and visitors away while operating a power tool. Distractions can cause you to lose control.

Electrical Safety

Ensure correct power outlet is used for power tool. Never modify the plug in any way. Do not use any adapter plugs with earth-grounded power tools. Using unmodified plugs and matching outlets will reduce the risk of electrical shock.

Do not expose power tools to moisture or rainy conditions. Exposing the power tool to water will increase the risk of electric shock.

When using a power tool outdoors ensure extension cord is suitable for outdoor use. A suitable outdoor extension cord will reduce the risk of electrical shock.

When operating a tool in damp or wet locations is unavoidable use a Ground Fault Circuit Interrupter (GFCI) protected supply. Use of the GFCI reduces the risk of electrical shock.

Avoid physical contact with earthed or grounded surfaces such as pipes, ranges, refrigerators, and radiators. When your body is earthed or grounded there is an increased risk of electrical shock.

Do not misuse/abuse the power cord. Do not use the cord for carrying, pulling, or unplugging the power tool. Keep cord away from moving parts, oil, heat, and sharp edges. Entangled or damaged cords greatly increase the risk of electrical shock.

POWER TOOL USE AND CARE

Control the feed rate while using power tool; do not force into material. Always use correct tool for specific tasks. Power tools are designed to perform specified tasks in a safe and more efficient manner.

The use of clamps and other practical securing devices ensures the work piece to be stable and supported for better control and cleaner cut. Never cut into a work piece that is improperly secured or held against the body.

Power tool should not be used if the switch does not turn it "ON" and "OFF". A power tool that cannot be controlled by a switch is dangerous and must not be used. The power tool should be repaired immediately.

Store unused power tools out of reach of children. Do not allow use by persons who are unfamiliar with the warnings and instructions for proper use. Power tools can be dangerous in the hands of unfamiliar users.

Before making any adjustments, changing accessories, or storing power tools, disconnect the plug from the power source or remove battery pack. Preventive safety measures reduce the risk of starting the power tool accidentally.

Cutting tools must be kept sharp and clean. Properly maintained cutting tools and blades are less likely to bind and enable safer control.

Maintain power tools. Check your power tool thoroughly for binding ofmoving parts, breakage of parts, misalignment, and any other condition which may affect the power tool's operation. If damage is found, do not use. Repair immediately by authorized persons. Proper maintenance will reduce the likelihood of an accident.

Use the power tool and accessories as specified in these instructions. Use of the power tool for a non-intended operation may result in a potentially hazardous situation.

Service

Have a qualified repair person service your power tool and replace parts with only identical parts. Having your power tool serviced regularly will ensure better safety and tool function.

ADDITIONAL SAFETY WARNINGS

Do not use AC rated tools with a DC power supply. The electrical components are likely to fail and be hazardous to the operator.

Keep handles clean, dry and free from slippery substances. Slippery hands may impede safe operation and result in loss of control.

It is important to maintain a periodic maintenance schedule. While cleaning your tool do not disassemble any portion of the tool. Be cautious of cleaning agents being used as some may damage the components of the tool.

Take your tool to a certified tool repair technician for repairs and routine maintenance.

⚠ WARNING

Construction environment dust created by sawing, power sanding and grinding, drilling, and other construction-related activities contains chemicals known to cause cancer, birth defects and other reproductive harm.

Examples of these chemicals are:

- Crystalline silica from masonry products.
- Arsenic and chromium from chemically treated lumber.
- Lead from lead based paints.
- Asbestos from old construction materials and insulation.

Risks from exposures vary depending on frequency of exposure. Work in a well-ventilated area with appropriate PPE to reduce the risks.

SAFETY FOR CIRCULAR SAWS

⚠WARNING

Ensure that all safety precautions and instructions are read prior to tool use.

CUTTING PROCEDURES

⚠ DANGER

Keep hands away from blade and cutting area. Handle the saw by the trigger handle and auxiliary handle only, in order to efficiently and safely operate.

Never reach underneath the work-piece. There are no protective devices on the underside of the work-piece to prevent the blade from causing personal injury.

Cutting depth should always be adjusted to the thickness of the workpiece. Less than a full saw blade tooth should be visible on the underside of the work-piece.

Always use a rip fence or straight edge guide when rip-cutting. Guides improve accuracy and reduce the chances of blade binding.

Holding the power tool by the insulated grips greatly reduces the risk of shock if an electrical wire or other energized power source is accidently cut into. Caution should always be used to avoid cutting “live” wires, as the power source can then enter the components of the power tool and shock the operator.

Work pieces should never be held by the operator during cutting. Use a secure platform to secure the work-piece. It is unsafe for an operator to hold a work-piece while cutting it, as the operator’s balance and safe control are compromised.

Always use blades designed for the power tool’s mounting hardware. Blades that do not match the mounting hardware of the tool will run wildly, making it hard and unsafe to control.

Never use incorrect or damaged mounting hardware or washers to secure the blade. Blade washers and bolts are specifically designed by the manufacturer for optimum performance and safe operation.

Always inspect the condition and quality of the wood before cutting and remove any nails. Some lumber needs special attention taken during cutting to avoid blade kickback; such as wet lumber, green lumber or pressure treated lumber.

Always hold the saw firmly to maintain positive control. Refer to figures in manual for proper hand positioning.

Dependent on use, the on/off switch may not last for the life of the saw. If the switch fails in the off position, the saw may not start. If it should fail while the saw is running, the saw may not turn off. If one of these occurs, unplug the power tool immediately and do not use it until repaired.

This saw should not be used as, or mounted to, a table saw. This saw is not intended to be used as a table saw.

Kickback definition and related warnings

Kickback is the sudden reaction of the tool, when the blade is pinched, bound or misaligned. Kickback causes an uncontrolled saw to lift out from the work piece and jump towards the operator.

When a blade is bound tightly or pinched by the cut of the wood closing down, the blade can become stalled and the motor reaction to this causes the tool to quickly move back towards the operator.

Kickback is the result of misuse and/or incorrect procedures and conditions. By taking some precautions, kickback can be avoided.

Maintain a firm grip with both hands on the saw and position your body and arms in a way that allows you to resist the forces of kickback. Always stand to either side of the blade and never in line with the blade.

If the blade becomes bound, or is interrupting a cut, release the trigger and hold the saw in position until the blade comes to a complete stop. Never attempt removing the saw or bringing it backwards while the blade is in motion or kickback will most likely occur. Determine the cause and take corrective action to eliminate the cause of binding.

When restarting the saw in a work piece, ensure that the saw blade is centered in the cut and is not contacting the material to be cut. If the saw blade is obstructed upon restart, the saw may kickback.

Large panels of material should be supported properly to minimize pinching and avoid kickback. Large panels tend to bend under their own weight. Supports should be placed under the panel on both sides, near the cutting line and the edge of the material.

Do not use dull or damaged blades. Dull, damaged or improperly secured blades produce excessive friction during cutting, which causes binding and kickback.

Extra caution should be taken when making a "plunge cut" into existing walls or other blind areas. The protruding blade may become pinched or bound on unexpected material.

Ensure that depth and bevel adjustment locking mechanisms are secure before making any cut. If the adjustment shifts during operation, it may cause kickback or loss of control.

Avoid unnecessary or excessive cut depth settings. Excessive blade exposure increases the possibility of binding and friction which cause kickback.

Never place your hand behind the saw blade. Kickback could cause the saw to jump back and cut your hand.

FUNCTIONAL DESCRIPTION

FIGURE 1. Straight Flush Saw

Maximum Capacities

Blade Size	8-1/2"
Blade Arbor	Hole Proprietary Recessed/Hex
Depth of cut at 90^{0}	3-1/8"
Depth of cut at 45^{0}	2-5/8"
Depth of cut at 65^{0}	1-3/4"
Front nose depth cut	1-9/16"

Technical Specifications

	English	Metric
Weight (net weight)	14.3 lb	6.5 kg
Length	19 1/4 inches	49 cm
Width (w/rip fence)	5 7/8 inches (11 inches)	15 cm (28 cm)
Height	13 inches	33 cm
Voltage	110-120 V	
Cycles	60/50 Hz	
Amperage	6.5 A	
Wattage	4,503 W	

MSRP Description

Model	Straight Flush Saw (SFS)
Model No.	SFS 8.5
Description	Multi-Function 8-1/2" Circular Saw
UPC/EAN	0022228658696

STRAIGHT FLUSH SAW SAFETY PRECAUTIONS AND COMMON PROCEDURES

⚠ WARNING

The saw must be disconnected from the power source before any adjustments are made to the configuration. Accidental motor activation may occur during adjustment of parts and could jeopardize personal safety.

The saw should be used with a grounded power source. The saw should be used with minimal extension cords from the power source, as excessive distances can result in damage to the saw/motor.

⚠ DANGER

This power tool is extremely dangerous in the hands of an unfamiliar operator. Ensure that all precautions and instructions are read and understood before operating.

Lower Guard Assembly

The lower guard assembly should never be modified or tampered with. Never pin the guard back. Pinning the guard back greatly increases bladeexposure and the dangers of saw operation.

Always make sure the lower guard has receded forward and is covering the blade before setting the saw down on the floor or work bench. The lower guard is retracted by the thumb lever and is intended to be retracted only when required. This will protect the blade from damage and ensure the safety of the people in the work area.

Do not carry the saw at your side while the blade is in motion. Inadvertent retraction of the guard may cause the blade to be exposed. An exposed blade can cause serious personal injury.

When available, always ensure that the dust cover is properly aligned when on the saw. The lower guard assembly of the dust cover is connected to the lower guard assembly section. These two are held in place by magnetic to lock the two in synchronistic movement. Should damage to either side of the lower guard assembly occur preventing the assembly from working properly, the saw should be removed from operation and repaired.

Dust Cover Assembly

Ensure dust cover assembly is securely fastened to upper body of saw before use.

⚠ WARNING

The dust cover assembly should only be removed temporarily for zero-clearance cuts, and should be immediately replaced for normal use. The dust cover assembly is intended to reduce the risks of dust related hazards. For removal procedures refer to the (Assembly/Configuration) section of this manual.

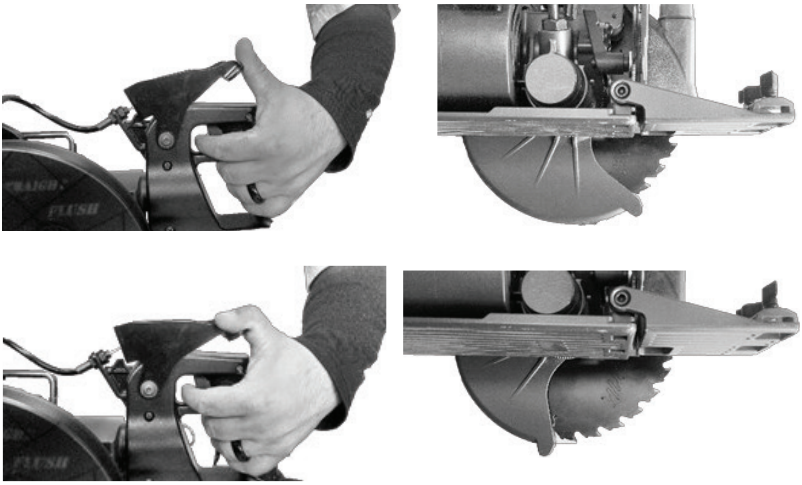
To better control dust hazards in the work place, the dust cover assembly has a vacuum port that works in conjunction with the standard “shop vacuum” sized vacuum hose. To use this function, place the vacuum hose into the vacuum port hole on the front dust cover and turn on the vacuum before running the saw.

Figure 2. Straight Flush Saw with dust cover.

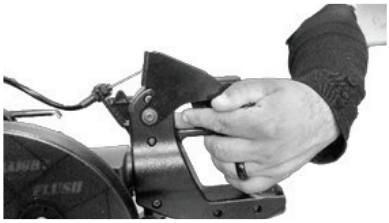
Trigger Actuated Lower Guard

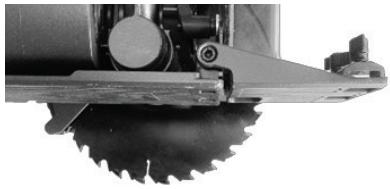
The lower guard trigger is only to be used with plunge cuts, compound cuts and cuts requiring zero clearance. The lower guard should automatically retract with all other cuts as the blade enters the material. The trigger actuated lower guard is designed to keep hands away from the blade and to allow the user to easily retract the guard for starting cuts.

Figures 3a - c. Retracting the lower guard.



For cuts requiring the use of the trigger actuated lower guard, ensure the guard trigger is released after entering the material. This allows the guard to immediately cover the blade after the cut.

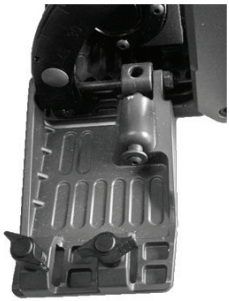




Before each use, inspect the function of the lower guard and trigger actuator assembly. By depressing the trigger actuator and releasing, ensure that the trigger actuator functions properly and allows the guard to be manually withdrawn from its forward position, and that after release, the guard moves freely back to the forward position covering the blade.

If the lower guard or trigger actuator doesn't function properly (if there is binding or the guard doesn't move freely) do not use the saw and have it serviced immediately.

Base Extension Plate



Figures 4a and b. Base Extension Plate (extended and retracted).

The base extension plate should normally be in the down or horizontal position. The base extension plate is intended to assist as a guide in cutting into suspended material and for basic cuts. This plate must be extended to use the Rip Gate. **The base extension plate should be placed in the up or vertical position for cuts that require a "nose cut" depth of 1 and 9/16" or for zero-clearance cuts around corners.**

Figures 5a and b. Base Extension Plate (resetting the plate).

In order to move the base plate extension from one position to the other, pull the locking pin ring and reposition the plate as desired. Ensure that the locking pin is ceded properly and that the plate is locked firmly in position. To reset the plate, push up on the front pin. Any unexpected mechanical shifts during cutting could result in loss of control.

Rotating Handle

Pull release pin to rotate handle.

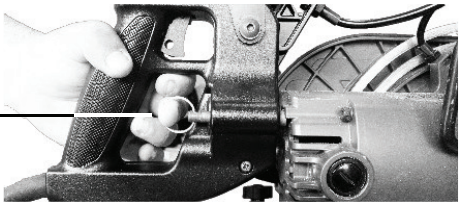


Figure 6. Handle releasing for rotation.

Always ensure that the handle is securely locked before each cut. If the handle is not locked in place properly, loss of control may result which could be potentially dangerous to the user.

Figures 7a and b. Handle rotation allows Saw to be operated comfortably and flush to the ground (0 to -6 degrees).

ASSEMBLY/CONFIGURATION

⚠ WARNING

Disconnect the power plug from the source before making any adjustments or removing accessories. Preventative safety measures reduce the risk of accidental starting.

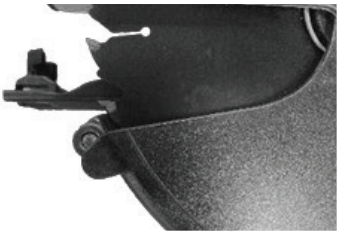
Dust Cover Removal

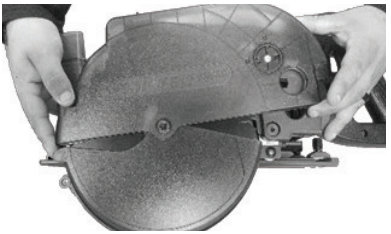
The dust cover assembly is intended to reduce the risks of dust related hazards and should only be removed temporarily for zero-clearance cuts. To remove, unlock the catch by rotating it until arrow points to the unlocked symbol as indicated below. Disconnect magnet holding the bottom assemblies, depress the quick disconnect tabs and gently pull cover away from saw body.

LOCKED

UNLOCKED

Figures 8a and b. Rotate locking mechanism from 'locked' to 'unlocked' position.

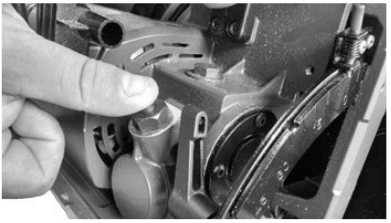




Figures 9a and b. Dust cover removal after releasing magnet on dust cover.

Blade Attachment/Removal

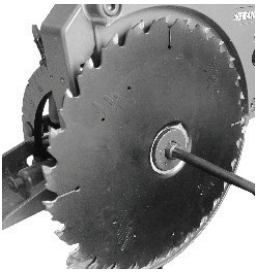
1) Remove the dust cover assembly (as indicated above).



Figures 10a and b. Depress blade lock button while using bolt wrench. Arbor bolt wrench is stored round sleeve above thumb in left image. Turn wrench clockwise to loosen.

2) Press and hold the lock button and turn the **(blade arbor bolt)** "clockwise" with wrench to loosen. Remove **arbor bolt** and **arbor cap**. The blade will be free to remove.

Arbor bolt (inside)



Figures 11a - c. Arbor without blade (lower guard spring to upper left of arbor), bolt and replaced blade. Blade must be securely fitted to arbor. Lock blade and turn counter-clockwise to seat arbor and secure blade.

3) Note: Use caution while performing these tasks, as moving parts may cause personal injury and blade teeth are shape. Inspect **lower guard spring** and **cable pulley** for cleanliness and proper operation. Depress the **lower guard actuator switch** to observe proper function.

4) Only use specified blades for the tool as they are recessed and the direction of the teeth can only go one way. Place the blade on the blade arbor.

(continued on next page)

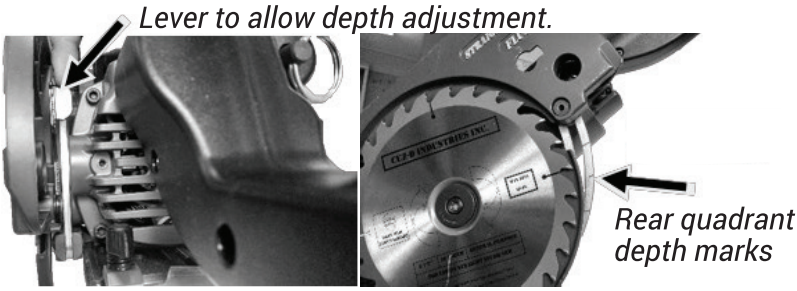
5) Place the blade **arbor cap** flush against the arbor and insert the blade **arbor bolt**. While pressing the blade locking button tighten the arbor bolt finger tight. Then tighten the arbor bolt 1/8 (45^{o}) with a wrench.

6) Reconnect dust cover assembly, ensuring that the locking mechanism is reset to the locked position (figure 8a).

OPERATING INSTRUCTIONS

Depth Adjustment

Disconnect tool from power source. Raise the depth lever located between upper guard and handle. Lift or lower the handle until desired depth is reached, hold the back center of base plate for better control. Push depth lever down to tighten at desired depth. There are notches indicating standard depth of cuts.

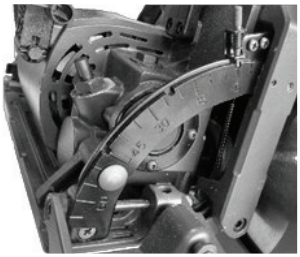


Figures 12a and b. Adjust depth by locating and activating release (between blade housing and motor by rear handle), move body of saw until angle provides ideal depth of blade. Quadrant gauge would be hidden by dust cover so it has been removed in this image. Once set to proper depth, reset release.

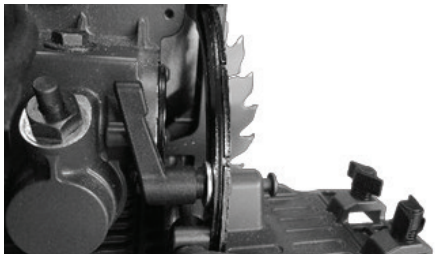
Check your depth; for minimum splintering no more than one tooth lengthshould extend below the material.

Bevel Adjustment

Disconnect the tool from power source. The base plate can be adjusted up to 65^{o} maximum and -5^{o} minimum. The bevel adjustment lever is located at the front of the saw. To set, loosen the bevel adjustment lever, align to desired angle, and then tighten the bevel adjustment lever. There are larger notches on the slide adjuster to indicate standard angles used. Using higher angle adjustments decreases base plate stability and increases thelikelihood of binding. Ensure the work piece is properly secured and base plate is firmly set on work piece.



Bevel Adjustment quadrant located in front of saw.



Release lever will ratchet the quadrant loose and allow it to be tightened.

Figures 13a and b. Adjust bevel by locating release, lift up locking pin and adjusting angle of blade to the desired cut.

90 Degree Cutting Angle Check

Disconnect the tool from power source. Set to desired or maximum cut depth setting. Loosen the bevel adjustment lever and set the bevel adjuster to 0^0. Check for 90^0 by placing a square between the bottom of the base plate and the blade.

Guide Line

The guide line is located on the top of the front dust cover to help make straight standard cuts. When the dust cover is removed for cuts requiring zero-clearance, press the saw flush against the opposing edge of the material. This will allow the blade to guide itself straight and flush along the path of the material as the saw moves forward in the cut.

Control Switch

To power “ON” the tool, squeeze the trigger switch. To turn “OFF” the tool, release the spring loaded trigger, which will automatically reset the switch to the “OFF” position. When the switch is set from “ON” to “OFF” a brief moment of reverse polarity is sent to the motor which acts as a motor brake.

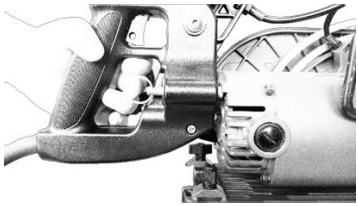


Figure 14. Rear handle and control switch.

The blade should be rotating at full speed BEFORE entering a cut; after the cut is complete, release the power switch and allow the blade to come to a complete stop BEFORE removing from material. To enhance the switch life, avoid starting and stopping the saw during cut.

Making General Cuts

⚠ WARNING

When starting the tool, hold firmly with both hands. Motor torque causes a “jerk” from centrifugal movement.

When making cuts, always use both hands, hold the trigger handle with one hand and the auxiliary front handle with the other.

⚠ WARNING

When a cut is complete and as the saw clears the material—and the trigger is released—be aware of the time it takes for the blade to come to a full stop. Do not allow the saw to contact any part of your body, as clothes or other obstructions may cause the lower guard to open, exposing more blade.

In order to resume an interrupted cut; squeeze the trigger and allow the blade to reach full speed and slowly re-enter the material and resume cutting.

For cross-grain cutting wood, move the saw slowly through the material to minimize material tearing and uplifting.

Plunge Cuts

Always disconnect the power plug before making adjustments. Set depth appropriately, according to material to be cut. With the saw tilted forward, align the guide line of the front dust cover with the line to be cut. Using the trigger actuated lower guard; raise the lower guard just clear of the material. Depress the power control switch and slowly lower the saw into the material using the front end of the foot as a pivot point. Note: for zero clearance plunge cuts, the dust cover assembly will be removed; guiding techniques vary for zero clearance application.

⚠ WARNING

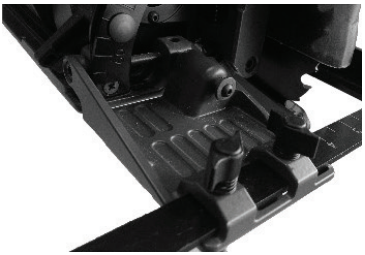
As the blade enters the material, ensure you release the trigger actuated lower guard, to allow the lower guard to immediately cover the blade after the cut. When the foot rests flat on cutting surface, proceed cutting forward. **Never pull the saw backward since the blade will climb out of material and KICKBACK.** If the corners of your plunge cut are incomplete use a jigsaw or hand saw to finish the cut.

Cutting Large Sheets

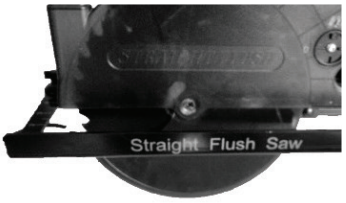
Large sheets and long boards will sag or bend without proper support. Place support under the material close to the area being cut. Set the proper depth so the blade doesn't cut the workbench or table. Ensure the support is stable and even. If the material is too large to place on workbench or saw horses, place support 2x4 on floor and secure. Improper support may lead to binding and kickback.

Rip Cuts

Rip cuts are done by cutting with the grain of the wood, using a rip fence (provided) will ensure a straight cut, but is not required. Attach the rip fence by sliding into side slots and securing with bolts.



The base extension plate must beextended and locked to install the rip fence. Ensure that both pairs (front and back) bolts are secured.



The rip fence may be installed tomeasure/align inside wall distance.If turned over, the edge can be laid over the edge of materials and measured from inside lip placed over materials to be cut.

Figures 15a and b. Insert rip fence into holding braces in front and back of saw. Ensure rip fence is installed paralell and flush to the saw direction of travel.

Rip Board Guide

Sometimes when rip cutting large sheets, the rip fence may not allow the desired width. Clamping or nailing a straight piece of lumber to the sheet will function as an adequate guide. The cut will be 6" from the rip board guide. Use the right side of the base plate against the guide board.

Zero Clearance Cuts

The dust cover must be removed for zero clearance cuts. Zero clearance cuts are guided by the base plate and by the blade resting flush against the surface of the opposing 90 degree surface from the material. For example, undercut zero clearance cuts require that the saw blade rests against the floor, allowing the blade to cut flush with the floor and into the cutting surface at the lowest point of the wall/floor intersection.

Some zero clearance cuts require you to start by making a plunge cut. Be familiar with the process and safety precautions associated with plunge cuts.
(Refer to "Plunge Cuts")

MAINTENANCE

⚠ DANGER

Zero clearance cuts can be especially dangerous because of the increased blade exposure associated; extra care must be taken in avoiding contact with blade and in preventing personal injury by dust and other flying materials. All persons not involved should stand well clear of the saw during cutting to avoid exposure to hazardous conditions. Be aware of the existence of blade exposure, as blade exposure varies with each task.

⚠ DANGER

Always ensure that the saw operator stands to the right of the saw during zero-clearance cutting, in order to prevent any accidental contact with the blade. Always have proper support and stable footing while making cuts and ensure clothing, jewelry, and foreign objects maintain clear of the cutting edge of the blade.

⚠ WARNING

Unplug from power source before making any adjustments.

Lubrication

Your saw has been properly lubricated and is ready for use. We recommend using only approved lubricants. The recommended oil is **Shell™ Brand Omala S2 G 320**.

Lubricating the pivot points, slide adjustments, and other moving parts (with one to two drops) on a regular basis increases the functionality and life of your tool.

Always check the oil level prior to use. To check or add oil: Remove tool from power source and place saw on level surface. ***The oil plug can be removed with a 13 mm wrench.*** Remove oil cap, oil level should never be below bottom threads of housing. When adding oil, fill until oil starts to spill out onto the arrow and replace plug.

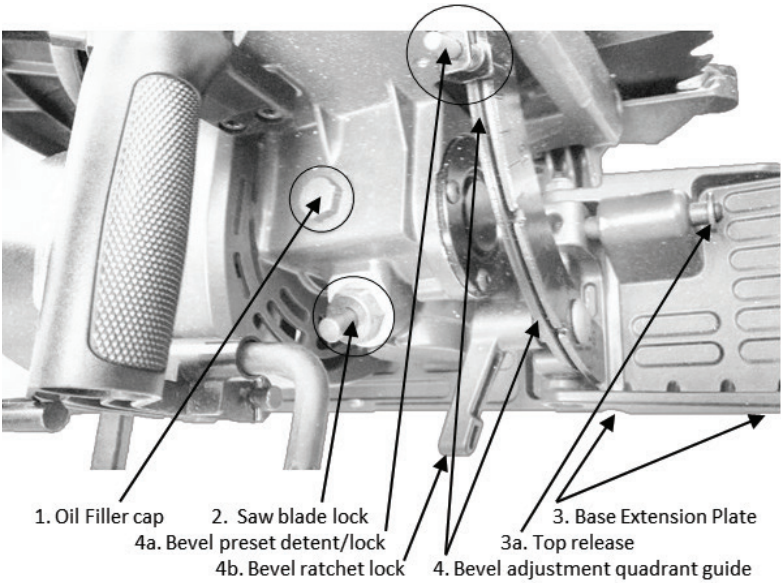


Figure 16. Left side of saw.

If oil is thick or extra dirty, replace the plug and run the saw for about one minute to warm and thin the oil. Remove plug and tip saw upside down to remove all oil. Fill housing with kerosene, replace plug, run for one minute. Remove plug and kerosene. Refill with fresh lubricant. New saws should have oil changed after first ten hours of use.

⚠ WARNING

Disconnect from power source before performing any maintenance or cleaning. Compressed air is the most effective way of cleaning the tool. Always wear eye protection when using compressed air to clean tools. Do not insert pointed object into the ventilation area and switch levers.

Cleaning

⚠ CAUTION

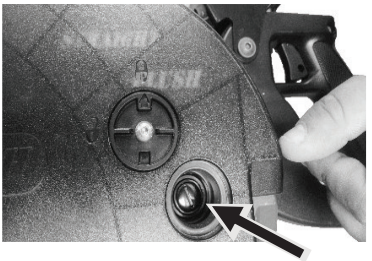
Some cleaning agents and solvents will damage plastic parts. Examples are: chlorinated cleaning solvents, carbon tetrachloride, gasoline, ammonia, and other household cleaning products containing ammonia.

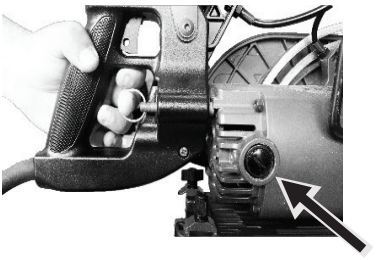
Clean tool after abrasive cuts as dust may accumulate or corrode the tool.

Care of Blades

If blade is not cutting properly it may be dirty or dull. Disconnect the tool from the power source and examine. If the blade is dirty wipe it down with kerosene and handle with care. If the Blade is dull, have it sharpened by experienced persons or replaced.

Carbon Brushes





Figures 17a and b. Carbon brushes are located on either side of saw and accessible by removing the black caps.

We recommend the brushes be examined every two to six months. The brushes should slide freely in and out of the holders without sticking and be clear from dust and dirt. Brushes need to be replaced when they have worn down to 3/16" in length.

How to check the brushes: Disconnect from the power source. Locate and unscrew the brush caps on the motor housing and lift the brushes out. Clean with a clean cloth or compressed air. Replace the brushes to original position and replace caps. When changing parts make sure they are identical.

Bearings

To avoid motor failure your bearings should be replaced at an authorized repair shop after about 300 hours of use. Bearings should be replaced immediately if they become noisy.

⚠ WARNING

Remove plug from power source and read instruction manual before making any adjustments or changing the blade.

TROUBLESHOOTING

SAW WILL NOT START

POTENTIAL CAUSE	REMEDY
1. Power cord is not plugged in.	**1.** Check power connection/ extensions to power source.
2. Fuse or breaker tripped.	**2.** Replace fuse or reset tripped circuit breaker.
3. Damaged power cord.	**3.** Inspect cord for damage, if damaged replace at authorized repair shop before use.
4. Burned out switch.	**4.** Have switch replaced by authorized repair shop.
5. Trigger does not turn tool on.	**5.** Have switch replaced by authorized repair shop.

BLADE DOES NOT COME UP TO SPEED

POTENTIAL CAUSE	REMEDY
1. Wrong extension cord (too light or too long).	**1.** Replace with adequate cord.
2. Low building voltage	**2.** Contact your electricity provider or check on-site power source.

EXCESSIVE TOOL VIBRATION

POTENTIAL CAUSE	REMEDY
1. Out of balance blade.	**1.** Install new blade and discard old blade.
2. Materials not secured or supported properly.	**2.** Secure work piece with clamps or supports as shown in manual.

EXCESSIVE TOOL VIBRATION

POTENTIAL CAUSE	REMEDY
1. Out of balance blade.	**1.** Install new blade and discard old blade.
2. Materials not secured or supported properly.	**2.** Secure work piece with clamps or supports as shown in manual.

LOWER GUARD NOT MOVING

POTENTIAL CAUSE	REMEDY
1. Dust Build up	**1.** Remove blade; examine and clean out dust build up with compressed air.
2. Jammed gear	**2.** Remove blade; lubricate and clean pulley, if damaged send to qualified repair shop.
3. Trigger cable off track	**3.** Remove blade; set pulley back in groove and tighten, if damaged send to qualified repair shop.

STALLING MOTOR WHEN RIPPING, BLADE BINDING, EXCESSIVE FRICTION OR BURNING

POTENTIAL CAUSE	REMEDY
1. Dull blade with wrong tooth set.	**1.** Replace blade with new or proper design for application.
2. Warped material.	**2.** Ensure concave or hollow side is facing down, and feed slowly.
3. Blade binding.	**3.** Re-assemble blade and re-tighten per “Blade Attachment /Removal”.
4. Materials not secured or supported properly.	**4.** Secure work-piece as shown in figure ()

Parts Listing

1	381342-902	Cap T type screw	Phosphate
2	130355-903	Blade clamp washer	Steam Black
3	390033-000	Saw Blade	
4	130356-903	Inner Blade washer	Steam Black
5	010506-000	I-ring	Black
6	049001-701	Pan head socket screw	Phosphate
7	130357-903	Low guard support bracket	None
8	030207-002	Ball bearing	
9	043507-000	Oil seal	Black
10	361254-901	Arbor shaft	Black after grinding
11	090331-000	Arbor bearing bracket	None
12	043711-000	O-ring	Black
13	320392-000	Worm gear	None
14	130358-000	Spindle lock collar	None
15	030106-002	Ball bearing	
16	006721-100	Wave washer	Black
17	012405-000	Key	Rust proofing
18	290105-902	Shoulder screw	Phosphate
19	021010-000	Lock cable ties	Black
20	251254-615	Low guard release gear	Black
21	660243-000	Low guard cable	
22	361259-902	Lock handle nut	Phosphate
23	002504-701	Round head socket Nyloc screw	Phosphate
24	174327-901	Cover plate	Black
25	998101-200	Locking flange nut	Galvanized
26	251240-615	Expansion Chamber	Black

27	090332-308	Gear case plate	Black
28	043712-000	O-ring	Black
29	010008-000	S-ring	Black
30	030102-002	Ball bearing	
31	320393-000	Pinion	None
32	043646-000	Oil seal	Black
33	033717-002	Ball bearing	
34	120001-481	Worm gear case	Powder coating
35	043305-000	O-ring	Black
36	043407-000	Oil plug	Black
37	381341-902	Lock pin bushing	Phosphate
38	174334-901	Washer	Black
39	280261-000	Spring	rust proofing
40	174318-000	Washer	rust proofing
41	361255-902	Lock pin	Phosphate
42	043312-000	O-ring	Black
43	002603-702	Cap Nyloc screw	Phosphate
44	924387-000	Hook assembly	
44.1	251255-615	Carry handle	Black
44.2	381340-902	Hook	Phosphate
44.3	011001-105	Dowel pin	Black
44.4	160090-000	Hook bushing	None
44.5	280263-000	Hook spring	rust proofing
45	924394-000	Side deck cover assembly	
45.1	000804-707	Round head socket screw	Phosphate
45.2	251261-615	Side deck cover lock knob	Black
45.3	251260-615	Side deck cover shallow	Black
45.4	924389-000	Lower guard cover assembly	

45.4.1	251259-615	Lower guard cover shallow	Black
45.4.2	130364-903	Lower guard cover location pin	Steam Black
45.5	006003-012	Flat washer	Phosphate
45.6	008302-300	Nyloc nut	Phosphate
46	251258-615	Adaptor	Black
47	251267-615	Bushing	Black
48	280265-901	Spring	Black
49	361258-902	Bevel scale location pin	Phosphate
50	280264-901	Location pin spring	Black
51	924388-000	Lower guard assembly	
51.1	120004-481	Lower guard	Powder coating
51.2	660002-000	Magnet	
52	280262-000	Lower guard spring	Rust proof
53	048902-703	Cap nylock screw add lock washer	Phosphate
54	029202-701	Round head socke nylock screw add washer	Phosphate
55	000104-814	Cap screw	Phosphate
56	006003-054	Flat washer	Phosphate
57	008306-300	Nyloc nut	Phosphate
58	120003-481	Side deck	Powder coating
59	049801-804	Round Phillip head nylock screw add lock washer and washer	Phosphate
60	251269-615	Plastic washer	Black
61	381347-902	Lock handle screw	Phosphate
62	800029-000	Armature	None
63	924385-000	Field	None
64	030101-002	Ball bearing	
65	006726-100	Wave washer	Black
66	120002-481	Motor housing	Powder coating
67	430002-000	Brush holder	

68	430015-000	Brush	
69	430005-000	Brush cap	
70	048902-802	Cap nylock screw add lock washer	Phosphate
71	001901-107	Set Nyloc screw	Black
72	040706-000	T wrench	Mang. phosphate
73	381346-902	Hex screw	Phosphate
74	924400-000	Rip Gate group	
74.1	174370-904	Rip gate	e coating Black
74.2	041303-009	Rip gate plastic bag	
75	174329-904	Depth lever	e coating Black
76	924386-000	Depth lock plate assembly	
76.1	002301-111	Rivet	Black
76.2	381339-902	Hinge	Phosphate
76.3	174333-905	Depth lock plate	Galvanized
77	003307-002	Round head phillip screw	None
78	042005-000	Desiccant	
79	002002-704	Round head Phillip Nyloc screw	Phosphate
80	001201-709	Round head self-screw	Phosphate
81	043337-000	O-ring	Black
82	280220-905	Ring	Galvanized
83	361257-902	Front handle location pin	Phosphate
84	090330-308	Front handle bracket	Black
85	290104-902	Shoulder screw	Phosphate
86	174326-904	Cable release handle	e coating Black
87	251257-615	Cable location plastic	Black
88	002001-702	Round head Phillip Nyloc screw	Phosphate
89	924399-000	Front handle assembly	
89.1	251253-615	Front handle right	Black

89.2	251250-615	Front handle left	Black
90	000303-203	Round head Phillip screw	Galvanized
91	006502-200	Star washer	Galvanized
92	010023-000	S-ring	Black
93	001201-405	Round head self-screw	Black
94	170755-901	Cord clamp	Black
95	340132-615	Spindle seal	Black
96	010201-000	E-ring	Black
97	491094-000	Trigger switch	
98	001201-601	Round head self-screw	Galvanized
99.1	453011-044	Power supply cord	
99.2	251241-615	Bend relief	Black
100	174332-904	Scale pointer bracket	e coating Black
101	174367-904	Bevel plate	e coating Black
102	006003-036	Flat washer	Phosphate
103	174353-000	washer	None
104	924446-000	Lock handle	
105	011001-103	Dowel pin	Black
106	000103-716	Cap screw	Black
107	250705-000	Rip gate fix screw	Black
108	000103-710	Cap screw	Phosphate
109	090329-481	Upper guard bracket	Paint
110	001003-702	Carriage bolt	Phosphate
111	174328-904	Bevel plate	e coating Black
112	002101-702	Dish Phillip screw	Phosphate
113	008037-800	Nyloc nut	Black
114	280065-000	Front deck spring	rust proofing

115	361256-902	Front deck lock pin	Phosphate
116	090328-481	Foot front (base)	Paint
117	006003-199	Flat washer	Phosphate
118	381343-902	Front deck release screw	Phosphate
119	120005-481	Foot (base)	Powder coating
120	041303-059	Saw bag	
124	550001-638	Manual	
127	006501-300	Star washer	Phosphate
128	008317-300	Nylock nut	Phosphate
131	340133-615	Gear case seal	Black

Table 1. Straight Flush Saw (Parts List).

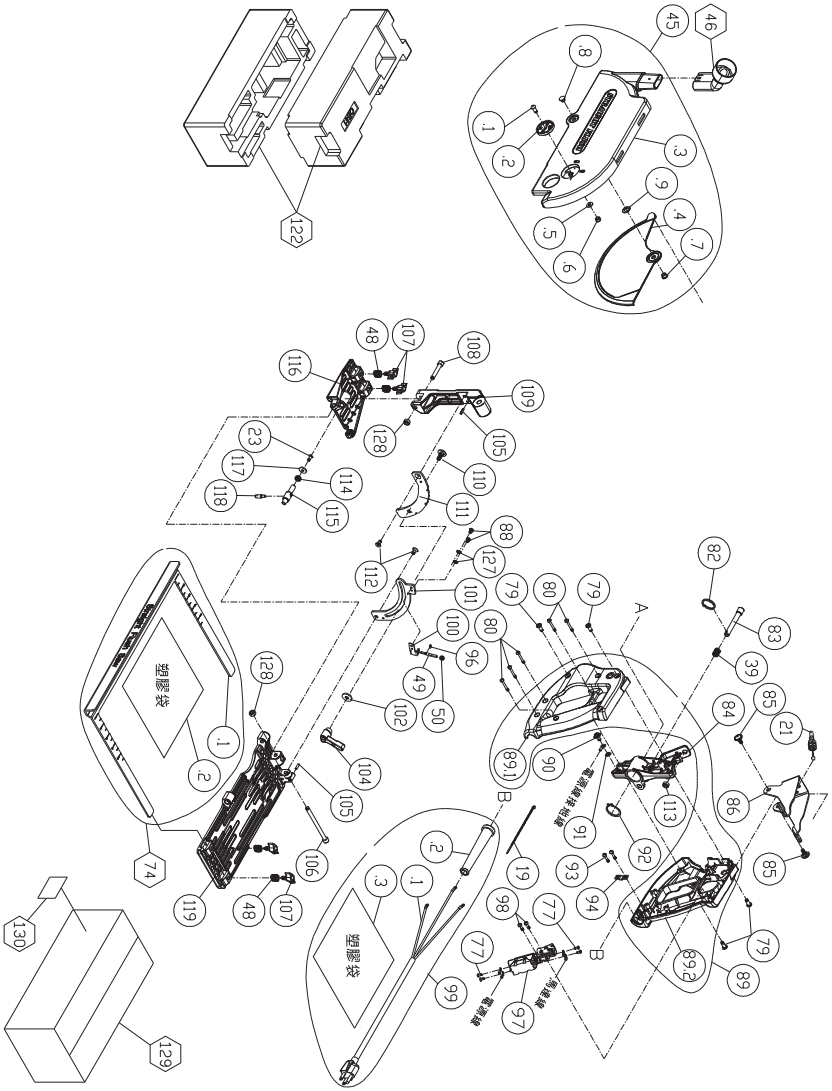


Figure xa Exploded Parts Image (bottom)

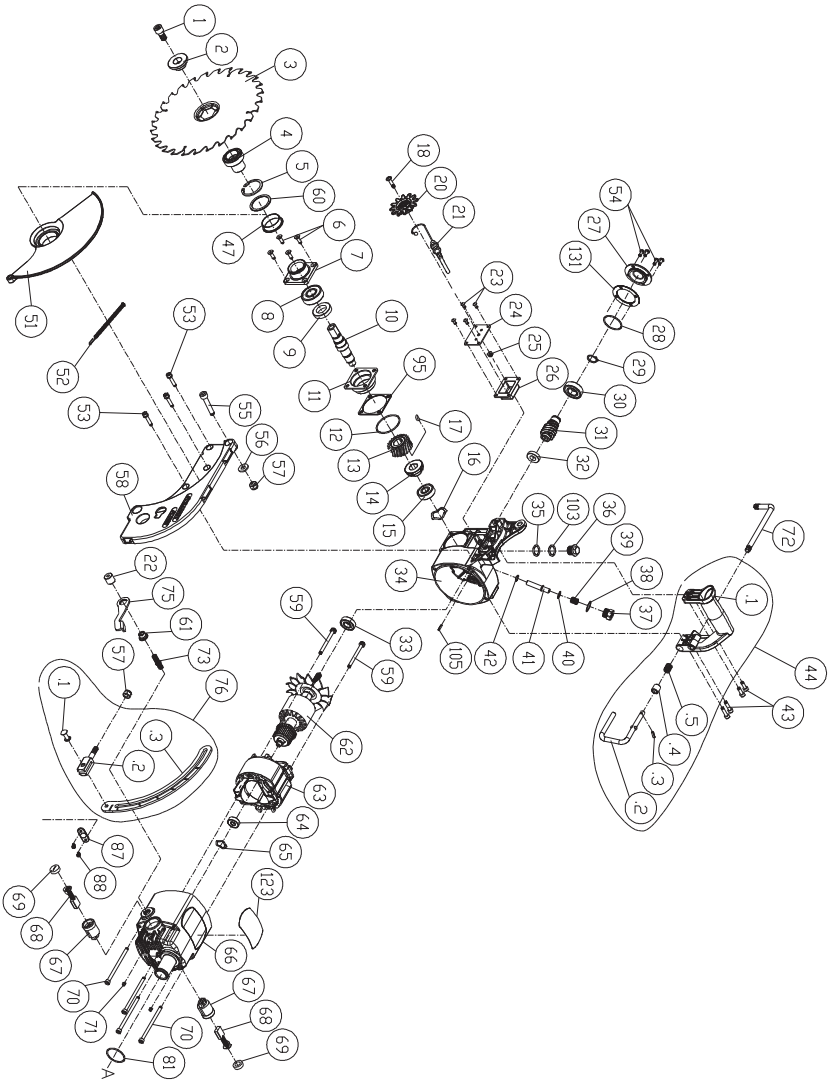


Figure xb Exploded Parts Image (top)

WARRANTEE

Cuz-D (seller) warrants to the original purchaser only, That all Cuz-D products will be free from defects in material or workmanship throughout the lifetime of this saw for professional use. Seller's sole obligation and your exclusive remedy under this limited lifetime warranty and, to the extent permitted by law any warranty or condition implied by law, shall be the repair or replacement of parts, without charge, which are defective in material or workmanship and which have not been misused, carelessly handled, improperly repaired by persons other than seller or authorized service location. To make a claim under this limited lifetime warranty, you must return the complete product, transportation prepaid, to Cuz-D or a certified reseller or repair shop. See our website for further warranty details and a list of certified repair shops and resellers.

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